

REMARKS

Claims 1-3 are rejected under 35 U.S.C. 103(a) as being obvious over Morton (U.S. Patent Number 4,306,113). Claims 4-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Behrens, *et al.* (U.S. Patent Number 5,903,857) in view of Becker, *et al.* (U.S. Patent Number 5,929,628). In view of the amendments to the claims and the following remarks, the rejections are respectfully traversed, and reconsideration of the rejections is requested.

Claims 1-3 are cancelled. Therefore, reconsideration of the rejections of claims 1-3 under U.S.C. 103(a) as being obvious over Morton, is respectfully requested.

Claim 4 is amended to incorporate the subject matter of claim 5, and claim 5 is cancelled. Claim 6 is cancelled.

In the present invention as claimed in claim 4, a system for measuring a characteristic of a filter in a DUT employing an analog filter includes a digital channel that provides an impulse signal without applying a sine wave to the analog filter of the DUT and a digitizer for receiving an output signal of the analog filter in response to the impulse signal so as to measure the characteristic of the filter. The digitizer includes an anti-aliasing filter for antialiasing-filtering an output of the analog filter, an analog to digital (A/D) converter for converting a filter output outputted from the anti-aliasing filter into digital data, a memory for capturing the digital data outputted from the A/D converter at a determined storage region, a digital signal processor (DSP) for processing in signal the digital data captured at the memory, and a digital filter for receiving the process signal outputted from the DSP and digitally filtering the process signal.

The Office Action states, at page 4, lines 16-22, that Behrens, *et al.* fails to teach that the digitizer includes an anti-aliasing filter for antialiasing-filtering an output of the filter, an analog to digital (A/D) converter for converting a filter output outputted from the anti-aliasing filter into digital data, a memory for capturing the digital data outputted from the A/D converter at a determined storage region, a digital signal processor (DSP) for processing in signal the digital data captured at the memory, and a digital filter for receiving the process signal outputted from the DSP and digitally filtering the process signal.

Behrens, *et al.* fails to teach or suggest a system for measuring a characteristic of a filter in a DUT employing an analog filter which includes a digitizer which includes an anti-aliasing filter for antialiasing-filtering an output of the filter, an analog to digital (A/D) converter for converting a filter output outputted from the anti-aliasing filter into digital data, a memory for capturing the digital data outputted from the A/D converter at a determined storage region, a digital signal processor (DSP) for processing in signal the digital data captured at the memory, and a digital filter for receiving the process signal outputted from the DSP and digitally filtering the process signal, as claimed in claim 4.

Becker, *et al.* discloses a program capture instrument 220 that includes an anti-aliasing filter 287 for filtering an output signal of a DUT 252 and a sample-and-hold 258 for sampling the filtered output signal. The program capture instrument 220 further includes an analog-to-digital converter 260 for converting the samples from analog to digital form and a local memory 262 for storing the data samples. A tester 200 measures a signal amplitude error by determining the amplitude response of its channel and data acquisition circuitry, and then corrects the measured error by first calculating a set of filter coefficients into a local memory of a digital filter 208. Switch 244 is then actuated to connect digital filter 208 to capture instrument 220, thereby allowing digital filter 208 to present corrected data samples to main memory 256 for subsequent processing by processor 254.

Like Behrens, *et al.*, Becker, *et al.* fails to teach or suggest a system for measuring a characteristic of a filter in a DUT employing an analog filter which includes a digitizer which includes an anti-aliasing filter for antialiasing-filtering an output of the analog filter, an analog to digital (A/D) converter for converting a filter output outputted from the anti-aliasing filter into digital data, a memory for capturing the digital data outputted from the A/D converter at a determined storage region, a digital signal processor (DSP) for processing in signal the digital data captured at the memory, and a digital filter for receiving the process signal outputted from the DSP and digitally filtering the process signal, as claimed in claim 4. Instead, in Becker, *et al.* the antialiasing filter does not filter an output of an analog filter, as claimed. Rather in Becker, *et al.*, the anti-aliasing filter 287 filters an output signal of a DUT 252. In addition, in Becker, *et al.*, the analog-to-digital converter 260 converts samples of the anti-aliasing filter 287 outputted from the sample-and-hold 285 into digital data, rather than converting the output of the anti-

aliasing filter 287, as claimed. In addition, the digital filter 208 of Becker, *et al.* does not receive the process signal outputted from processor 254. Instead, in Becker, *et al.*, the digital filter 208 is connected to capture instrument 220, thereby allowing digital filter 208 to present corrected data samples to main memory 256 for subsequent processing by processor 254.

Behrens, *et al.* and Becker, *et al.* fail to teach or suggest elements of the invention set forth in claim 4. Specifically, Behrens, *et al.* and Becker, *et al.* fail to teach or suggest a system for measuring a characteristic of a filter in a DUT employing an analog filter which includes a digitizer which includes an anti-aliasing filter for antialiasing-filtering an output of the analog filter, an analog to digital (A/D) converter for converting a filter output outputted from the anti-aliasing filter into digital data, a memory for capturing the digital data outputted from the A/D converter at a determined storage region, a digital signal processor (DSP) for processing in signal the digital data captured at the memory, and a digital filter for receiving the process signal outputted from the DSP and digitally filtering the process signal, as claimed in claim 4. Accordingly, there is no combination of the references which would provide such teaching or suggestion. Neither of the references, taken alone or in combination, teaches or suggests the invention set forth in claim 4. Therefore, it is believed that claim 4 is allowable over the cited references, and reconsideration of the rejection of claim 4 under 35 U.S.C. § 103(a) based on Behrens, *et al.* and Becker, *et al.* is respectfully requested.

In view of the amendments to the claims and the foregoing remarks, it is believed that all claims pending in the application are in condition for allowance, and such allowance is respectfully solicited. If a telephone conference will expedite prosecution of the application, the Examiner is invited to telephone the undersigned.

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Authorization is hereby given to charge Deposit Account No. 501798 for any additional fees which may be due.

Respectfully submitted,

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